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Pandemic school closures: risks and opportunities

The novel coronavirus disease 2019 (COVID-19) has swept across 210 countries and territories with over 1·2 million cases and 67594 deaths reported by April 6, 2020. Most countries have implemented social distancing measures to curb the spread of infection and minimise the impact of the virus.

188 countries have implemented country-wide school closures, but a modelling study by Ferguson and colleagues concluded that in the UK, school closures alone will reduce COVID-19 deaths by only 2–4%. Most evidence for school closures has come from influenza outbreaks such as the 2009 H1N1 influenza pandemic in which children were disproportionately affected. During that time, the US closed 700 schools but the response was local and only for a couple of weeks. To tackle COVID-19, Chinese schools have been closed for more than 2 months, and many countries have closed their schools and colleges indefinitely.

Despite increasing reports of some children with underlying conditions experiencing serious illness and even death, the vast majority of children and adolescents experience mild symptoms in response to SARS-CoV-2 infection. With over 90% of the world's students (more than 1·5 billion young people) currently out of education, it's clear that the greatest threats from COVID-19 to children and adolescents lie outside the clinic.

A systematic review by Russell Viner and colleagues, published on April 6, assessed findings from 16 studies looking at the effects of school closures on coronavirus outbreaks in China, Hong Kong, and Singapore. They found limited benefit on slowing the spread of the virus, and the authors stress that closures must be considered within the wider context of loss of essential workers due to childcare demands, restrictions in learning, socialising, and physical activity for pupils, and the substantial risks to the most vulnerable children, including those in low-income settings. Following school closures amidst the west African Ebola epidemic, rates of child labour, neglect, sexual abuse, and adolescent pregnancies spiked, and many children never returned to school.

Many children will suffer from a lack of access to school-provided social assistance, such as free lunches or clean water and washing facilities. Those engaged with school-facilitated health care, such as vaccinations and mental health services, may miss out on vital health provisions. Children confined at home will struggle to achieve the WHO 24 h movement behaviour guidelines which recommend 60 minutes a day of moderate-to-vigorous physical activity for 5–17 year olds. This jeopardises not only young people's mental wellbeing and healthy weight status, but also increases the risk of establishing dangerous habits, such as increased screen time and snacking that can damage future cardiovascular and musculoskeletal health.

For adolescents, school closures and social distancing may be particularly challenging. During adolescence young people grow in independence and begin to prioritise connections with peers over parents—disruption of these can pose significant challenges to young people's wellbeing. Adolescents may also be grieving for the rites of passage they were due to experience and feeling apprehensive about an uncertain future in the face of cancelled exams. Anxiety might also arise in older children and adolescents as they try to understand the pandemic and the threat it poses to them, their families, and friends.

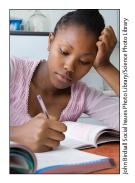
Public health officials must prioritise national plans for how and when to reopen schools, with consideration of alternative measures such as reduced hours or staggered lessons. Many children will likely require support as they transition back to normal life, especially those who have experienced bereavement.

In the meantime, the pandemic offers an opportunity for young people to develop and hone their resilience and adaptability, and appreciate the value of social responsibility and self-sacrifice for the protection of the most vulnerable. Many inspirational young people are rising up to drive the COVID-19 response in their communities. Xian Lu, who moved to Wuhan to cook 400 meals a day for medical personnel during the city's peak crisis, is one of ten young people recently recognised by Jayathma Wickramanayake, the UN Secretary General's Envoy on Youth for their efforts in fighting the pandemic.

It is imperative that we validate the experiences of the young during this global crisis, that we listen to their creative solutions for coping and connecting, and that we empower them to utilise their new skills to create a more robust, caring, and connected society as we emerge into the changed world.

The Lancet Child & Adolescent Health





Published Online April 8, 2020 https://doi.org/10.1016/ \$2352-4642(20)30105-X

For the modelling study by Ferguson and colleagues see Imperial College, 2020; published online March 16. https://doi. org/10.25561/77482 [preprint]

For the Review by Russell Viner see page 397

For more on the **UN's** inspirational youth see https://www.un.org/ youthenvoy/2020/04/meet-10-leaders-who-can-inspire-you-to-change-the-world/